

Supplement 1 Association between maternal vitamin D status and maternal toll-like receptor triggered cytokine response

	<u>Univariate analysis</u>		<u>Multivariate analysis</u>	
	$\beta$ (95% CI)	p	$\beta$ (95% CI)	p
<b>TLR1-2</b>				
TNF- $\alpha$	0.06 (-0.003, 0.12)	.06	0.05 (-0.02, 0.12)	.14
IL-6	-0.07 (-0.16, 0.03)	.15	-0.08 (-0.18, 0.03)	.16
IL-10	-0.01 (-0.19, 0.18)	.95	0.12 (-0.19, 0.43)	.39
<b>TLR3</b>				
TNF- $\alpha$	0.03 (-0.02, 0.07)	.24	0.23 (-0.02, 0.07)	.32
IL-6	0.01 (-0.05, 0.06)	.85	0.01 (-0.05, 0.07)	.72
IL-10	-0.15 (-0.35, 0.06)	.14	-0.04 (-0.45, 0.37)	.83
<b>TLR4</b>				
TNF- $\alpha$	-0.004 (-0.09, 0.08)	.92	-0.08 (-0.10, 0.08)	.85
IL-6	-0.009 (-0.13, 0.11)	.88	0.003 (-0.12, 0.13)	.96
IL-10	0.63 (0.12, 1.13)	.02	0.66 (-0.11, 1.43)	.08
<b>TLR7-8</b>				
TNF- $\alpha$	0.02 (-0.05, 0.08)	.64	0.03 (-0.04, 0.10)	.43
IL-6	0.01 (-0.07, 0.08)	.99	-0.03 (-0.12, 0.06)	.51
IL-10	-0.04 (-0.32, 0.25)	.79	-0.30 (-0.93, 1.60)	.57
<b>PHA</b>				
TNF- $\alpha$	0.03 (-0.06, 0.11)	.53	0.004 (-0.09, 0.10)	.94
IL-6	-0.03 (-0.10, 0.04)	.46	-0.03 (-0.11, 0.05)	.41
IL-10	0.02 (-0.15, 0.19)	.81	-0.07 (-0.32, 0.19)	.58

Number of samples: (TNF: 47; IL-6: 41; IL-10: 28)

Adjusted for gestational age, gender, birth body weight, mode of delivery, maternal allergy, and season of birth

Supplement 2 Relation of maternal and cord blood 25(OH)D to TLR9-triggered cytokine response

	<u>Univariate analysis</u>		<u>Multivariate analysis</u>	
	$\beta \square(95\% \text{ CI})$	p	$\beta \square(95\% \text{ CI})$	p
<b><i>Maternal 25(OH)D</i></b>				
TNF- $\alpha$	0.11 (-0.07, 0.30)	.18	0.29 (-0.48 - 1.06)	.13
IL-6	0.00 (-0.07, 0.67)	.98	0.03 (-0.14 – 0.19)	.65
IL-10	-0.08 (-0.23, 0.08)	.28	-0.24 (-0.79 – 0.30)	.25
<b><i>Cord 25(OH)D</i></b>				
TNF- $\alpha$	-0.10 (-0.24, 0.04)	.14	-0.12 (-0.38, 0.14)	.23
IL-6	-0.05 (-0.12, 0.02)	.12	-0.06 (-0.15, 0.02)	.12
IL-10	-0.16 (-0.31, -0.01)	.04	-0.20 (-0.11, 0.07)	.41

Number of samples: (TNF: 18; IL-6: 20; IL-10: 17)

Adjusted for gestational age, parity, gender, birth body weight, mode of delivery, and maternal allergy

Both 25(OH)D and cytokine level were logarithmically transformed for analysis as continuous variables